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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/798,880	03/12/2004	R. Stanley Brown	2002-057-02US	4890

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CANADA

EXAMINER

NWAONICHA, CHUKWUMA O

ART UNIT	PAPER NUMBER
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1621

DATE MAILED: 08/31/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/798,880

Applicant(s)

BROWN ET AL.

Examiner

Chukwuma O. Nwaonicha

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on 8/4/05.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-12 and 14-41 is/are pending in the application.
- 4a) Of the above claim(s) 38-41 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-12 and 14-37 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

### DETAILED ACTION

Claims 1-12 and 14-41 are pending in the application.

#### ***Priority***

Applicants' claim for domestic priority under 35 U.S.C. 119(e) is acknowledged.

#### ***Election/Restrictions***

Applicant's election with traverse of Group I (claims 1-12 and 14-37) in the reply filed on 8/4/05 is acknowledged. The traversal is on the ground(s) that Group I (claims 1-12 and 14-37) and Group II (claims 38-41) are related as a single invention.

The traversal is not found persuasive because the invention of Group I (claims 1-12 and 14-37) is directed to a method for decomposing a neutral organophosphorus compound while Group II (claims 38-41) is directed to a kit. These two inventions require different search strategies that will impose an undue burden on the Examiner.

The requirement is still deemed proper and is therefore made **FINAL**.

Group II (claims 38-41) are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected Groups, there being no allowable generic or linking claim. All claims consisting of Group 1: claims 1-12 and 14-37 will be examined on the merits. Applicants are reminded of their right to file divisional application to the non-elected claims.

Applicants' are reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim

remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

**Claim** 1-12 and 14-37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Franke et al., {WO 02/072206 A1} in view of Neverov et al., {La<sup>3+</sup>-Catalyzed Methanolysis of Phosphate Diesters. Remarkable Rate Acceleration of the Methanolysis of Diphenyl Phosphate, Methyl *p*-Nitrophenyl Phosphate, and Bis(*p*-nitrophenyl) Phosphate, *Inorg. Chem.*; (Article); 2001; 40(14); 3588-3595}.

Applicants' claim a method for decomposing a neutral organophosphorus compound comprising subjecting said neutral organophosphorus compound to an alcoholysis reaction in a substantially non-aqueous medium comprising non-radioactive

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metal ions selected from the group consisting of lanthanide series metal ions, transition metal ions, and combination thereof, and at least a trace amount of alkoxide ions, wherein, through said alcoholysis reaction, said organophosphorus compound is decomposed; wherein all the variables are as defined in the claims.

**Determination of the scope and content of the prior art (M.P.E.P. §2141.01)**

Franke et al. teach a basic, non-aqueous decontamination process, used as detoxification agent with a universal effect against chemical weapons for detoxifying military and civil technical means and devices, buildings and streets; whereby said basic, non-aqueous decontamination fluid comprises 20 to 40 wt. % of an aliphatic C<sub>2</sub>-C<sub>6</sub> alcohol; 20 to 40 wt. % of an aliphatic C<sub>2</sub>-C<sub>6</sub> aminoalcohol; 20 to 50 wt % of a cyclic C<sub>2</sub>-C<sub>6</sub> acid amide and/or an aliphatic C<sub>2</sub>-C<sub>6</sub> diamine, 0.5 to 2.6 Mol/l of an alkali alkoxide and/or an alkali aminoalkoxide.

**Ascertainment of the difference between the prior art and the claims (M.P.E.P..**

**§2141.02)**

Franke et al. basic, non-aqueous decontamination process differs from the instantly claimed process in that Franke et al. do not teach a process wherein lanthanide series metal ions and transition metal ions are employ. Franke et al. teach 0.5 to 2.6 Mol/l of an alkali alkoxide while applicants claim about 0.1 to 2 equivalents of the concentration of the metal ions. Another difference between applicants claimed invention and Franke et al. is that applicants claim a process that employs lanthenides series metal ions while Franke et al. is silent about these metals.

However, Neverov et al. teach the interaction of  $\text{La}^{3+}$  with diphenyl phosphate, methyl *p*-nitrophenyl phosphate, and bis(*p*-nitrophenyl) phosphate and the ensuing catalysis of methanolysis studied in methanol under completely homogeneous conditions of known pH. Neverov et al. specifically teach that among the metal ions considered, lanthanides exhibit the most dramatic acceleration in the decomposition process, see introduction, page 3588. The Examiner interprets the processes of Franke et al. and Neverov et al. to read on insecticide since the composition of pesticide and insecticide consist of organophosphorus compound.

**Finding of prima facie obviousness--rational and motivation (M.P.E.P. §2142-2143)**

The instantly claimed process for decomposing a neutral organophosphorus compound would therefore have been suggested to one of ordinary skill because one wishing to for decomposing a neutral organophosphorus compound is taught to select the processes of Franke et al. and Neverov et al.

One of ordinary skill in the art would have a reasonable expectation of success in practicing the instant invention by varying the process conditions taught by Franke et al. and Neverov et al. to arrive at the instantly claimed process for decomposing a neutral organophosphorus compound. Said person would have been motivated to practice the teaching of the references cited because they demonstrate that neutral organophosphorus compound can be decomposed with a metal ions. Thus, the variation of the process conditions for decomposing a neutral organophosphorus compound is not a patentable distinction because references cited teach the elements

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of the claimed invention with sufficient guidance, particularity, and with a reasonable expectation of success, that the invention would be *prima facie* obvious to one of ordinary skill in the art.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chukwuma O. Nwaonicha whose telephone number is 571-272-2908. The examiner can normally be reached on Monday thru Friday, 8:30am to 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Johann R. Richter can be reached on 571-272-0646. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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Art Unit: 1621



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